Climate Change

CSD-14 & CSD-15

Climate change formed part of the thematic cluster with energy, industrial development, and air pollution/atmosphere reviewed by the Commission on Sustainable Development at its fourteenth session in 2006 and fifteenth session in 2007.

Warming of the Climate System

The Earth's climate system has demonstrably changed on both global and regional scales since the pre-industrial era, with some of these changes attributable to human activities. The atmospheric concentrations of key anthropogenic greenhouse gases (i.e. carbon dioxide, methane, nitrous oxide and tropospheric ozone (O3) reached their highest recorded levels, primarily due to the combustion of fossil fuels, agriculture, and land use changes. The consensus scientific basis on climate change is provided by the Intergovernmental Panel on Climate Change (IPCC), established in the late 1980s under the auspices of the World Meteorological Organization (WMO) and UNEP. The summary of the IPCC Fourth Assessment Report, released in early 2007, concludes that the warming of the climate system is unequivocal and accelerating. It goes on to state that the observed increase in global average temperatures is very likely (greater than 90 % confidence) due to GHG emissions from human activities, up from greater than 60% confidence in its 2001 assessment report.

United Nations Convention on Climate Change

Agenda 21, which addresses climate change under its Chapter 9 (Protection of the atmosphere), recognizes that activities that may be undertaken in pursuit of the objectives defined therein should be coordinated with social and economic development in an integrated manner with a view to avoiding adverse impacts on the latter, taking into full account the legitimate priority needs of developing countries for the achievement of sustained economic growth and the eradication of poverty. Both Agenda 21 and the Johannesburg Plan of Implementation (JPOI) assert that the United Nations Convention on Climate Change (UNFCCC) is the key instrument for addressing climate change.

The UNFCCC aims to stabilize of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. With 189 Parties, the Convention is virtually a universal instrument. The Kyoto Protocol, which entered into force on 16 February 2005, sets binding emission reductions targets for industrialized countries for the first commitment period 2008-2012. The Protocol has 174 Parties (as at 6 June 2007).

Climate Change & Sustainable Development

Climate change impacts can undermine countries' efforts to achieve the goals of sustainable development, including in particular by worsening poverty in developing countries, especially the Least Developed Countries and the Small Island Developing

States. The IPCC projects that many millions will be flooded every year due to sea-level rise by the 2080s, with densely-populated and low-lying areas where adaptive capacity is relatively low, and which already face other challenges such as tropical storms or local coastal subsidence, facing special risks. Climate change is expected to have an uneven impact on food production. Moderate temperature increases will see a rise in productivity at the global level, but at lower latitudes, especially seasonally dry and tropical regions, crop productivity is projected to decrease for even small local temperature increases (1-2−C), increasing risk of hunger.

Development paths and production and consumption patterns have various impacts on the climate system. Increasingly climate change is being considered in the broader context of sustainable development, for instance through the integration of climate policies into national development planning and national sustainable development strategies.

Please also see the UN's Gateway on Climate Change